SYMBOLS

Contact
Long-dashed where approximately located.

Fossil localities
Predominantly echinodermal debris is indicated by columnals.

No major faults have been mapped; many small scale NW-SE offsets can be seen in the field.

PLANAR FEATURES

Bedding, strike and dip

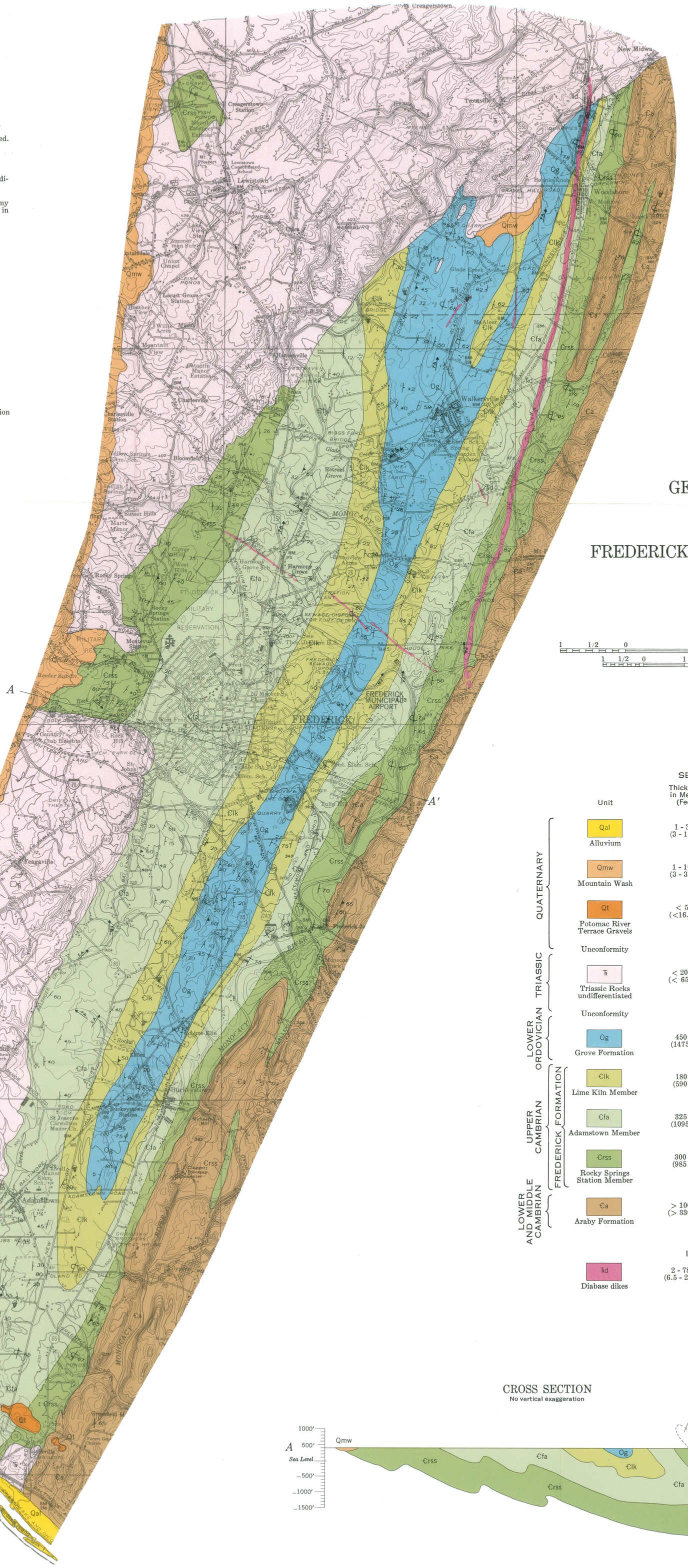
Overturned beds

Cleavage, strike and dip
Only dominant cleavage indicated.

LINEAR FEATURES

Minor fold axes, bearing and plunge direction

MN
7½°
1971 MAGNETIC NORTH DECLINATION



GEOLOGIC MAP OF THE FREDERICK VALLEY, MARYLAND

By
Juergen Reinhardt
1974

Scale 1:62500

1 1/2 0 1 2 3 4 Miles
1 1/2 0 1 2 3 4 5 Kilometers

Contour interval 20 feet
Datum is mean sea level

EXPLANATION

SEDIMENTARY ROCKS

	Unit	Thickness in Meters (Feet)	Description
QUATERNARY	Qal Alluvium	1 - 3 m (3 - 12 ft)	Interbedded sand, silt, clay and sparse gravels of the Potomac River floodplain.
	Qmw Mountain Wash	1 - 10 m (3 - 33 ft)	Poorly sorted, angular sandy, silty and granular colluvium and alluvium(?).
	Qt Potomac River Terrace Gravels	< 5 m (<16.5 ft)	Well rounded, spherical to discoid quartz and quartzite cobbles.
	Unconformity		
TRIASSIC	Ŧr Triassic Rocks undifferentiated	< 200 m (< 655 ft)	Limestone and quartz pebble conglomerates, red siltstones and mudstones.
	Unconformity		
LOWER ORDOVICIAN	Og Grove Formation	450 m (1475 ft)	Interbedded, cross-bedded peloidal to arenaceous limestones, stromatolitic, fossiliferous limestones and laminated to massive dolomites.
UPPER CAMBRIAN, FREDERICK FORMATION	Ꞓlk Lime Kiln Member	180 m (590 ft)	Fine grained, thin bedded and laminated limestones and dolomites; highly burrowed, containing abundant fossil debris, stromatolitic at very top. Sparse quartz sand and silt.
	Ꞓfa Adamstown Member	325 m (1095 ft)	Uniformly fine grained, laminated and thin bedded, dark gray limestones, sparse burrows and fauna. Unit contains several traceable breccia zones.
	Ꞓrss Rocky Springs Station Member	300 m (985 ft)	Interbedded light gray peloidal and dark gray thin bedded limestones and dolomites with sparse limestone breccias and locally abundant coarse quartz sand. Very sparse fauna, no burrows. Laminated calcareous shale and dolomite at the base.
LOWER AND MIDDLE CAMBRIAN	Ꞓa Araby Formation	> 100 m (> 330 ft)	Tan to buff metasiltstone and phyllite, typically highly cleaved and mottled. Top of unit contains echinoderm columnals; *Olenellus* sp. in lower portion of unit.

INTRUSIVE ROCKS

Ŧd Diabase dikes	2 - 78 m (6.5 - 255 ft)	Dark green to black, medium to coarse grained augite diabase.

CROSS SECTION

No vertical exaggeration

Williams & Heintz Map Corporation, Washington, D. C. 20027